

UNITED STATES DISTRICT COURT
DISTRICT OF CONNECTICUT

UNITED STATES OF AMERICA,)	
)	
Plaintiff,)	
)	
vs.)	CRIMINAL NO. 3:07-CR-134 (JBA)
)	
IONIA MANAGEMENT S.A.,)	
)	
Defendant.)	
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SPECIAL MASTER’S SECOND REPORT

I. Introduction and Status of Work

This report is made pursuant to the Special Master Appointment and Scope of Work order dated April 18, 2008 in the above matter (the “Special Master Order”).

After the Special Master’s First Report, dated January 16, 2009, the Independent Environmental Consultant (“IEC”) conducted an underway audit of the M/T FIDIAS during the period of January 24, 2009 to February 4, 2009, and submitted a report to the undersigned on February 27, 2009. The audit report was distributed to the parties on March 23, 2009.

The Special Master’s First Report recommended that Ionia Management, S.A. (“Ionia”) advise the Special Master, the IEC and the ICC and government representatives of its progress in implementing a fully operational Special Waste Oil Monitoring System (“SWOMS”). Ionia submitted a report on March 12, 2009 stating that a SWOMS had not yet been fully commissioned on its vessels. Ionia submitted a further update on April 18, 2009 indicating the SWOMS had been fully commissioned onboard the M/T FIDIAS. Ionia then submitted a final

report on May 13, 2009, indicating the SWOMS had been fully commissioned on the M/T THEO T.

The IEC conducted an evaluation of the SWOMS onboard the M/T THEO T on June 16 and 17, 2009. A full report of the evaluation was furnished to the undersigned on June 25, 2009 and distributed to the parties.

Since the first Special Master's hearing in December, 2008, Ionia has submitted records relevant to waste oil generation management and processing aboard the M/T FIDIAS and M/T THEO T (the "Covered Vessels") on a monthly basis. The records have been submitted within 40 days of the end of the month the records were generated. Given the trading schedule of the vessels and the necessity of transmitting many of the records by post from ports-of-call, the time for transmission of the records to the required recipients has been reasonable. Moreover, the IEC and ICC have communicated with Ionia management periodically by email and telephone on topics relating to Ionia's progress on implementing the SWOMS, training issues and document production.

The Special Master's second hearing was held on July 8, 2009, in New Haven, Connecticut. Prior to the hearing, on March 23, 2009, the undersigned provided the parties with a list of topics that would be addressed at the hearing. The parties were invited to suggest additional topics and were required to produce copies of all documents they wished to produce to the Special Master and the opposing party. The parties complied with the pre-hearing requirements.

II. July 8, 2009 Hearing

A. Summary of Proceedings and Evidence.

A hearing was held July 8, 2009, at the United States District Court in New Haven, Connecticut. The United States was represented by Lana Pettus, U.S. Department of Justice, Environmental and Natural Resources Division, Environmental Crimes Section. Ionia was represented by Michael Chalos and George Kontakis. Also present was: United States Probation Officer Patrick Norton; United States Coast Guard Lieutenant Commander John Cashman and Lieutenant Commander Channing Burgess; Ken Olsen, United States Coast Guard Headquarters; IEC Captain Richard Wigger; and Independent Corporate Consultant (“ICC”) James Sanborn. Also present on behalf of Ionia were Krystyna Tsochlas, Ionia’s Safety and Quality Manager, Environmental Management Representative and Designated Person Ashore, and George Karagiorgis, Ionia’s Technical Manager and Corporate Compliance Manager (designated pursuant to § II of the Special Master Order).

Evidence at the hearing consisted principally of the testimony of Ms. Tsochlas, supplemented with brief testimony by Mr. Karagiorgis. With the aid of a PowerPoint presentation, Ms. Tsochlas testimony was directed to the following issues:

1. Progress in fully implementing the special waste oil monitoring systems (“SWOMS”);
2. Training, including an assessment of the training carried out at the manning agent facilities in the Philippines, and an assessment of the implementation of Ionia’s computer-based training program and plans for future training improvements, including audits of training programs;

3. Environmental management system, including the status of the implementation and distribution of the Environmental Management Plan (“EMP”);
4. Response to issues raised in the M/T FIDIAS initial audit;
5. Fleet engineering survey;
6. Additional issues including implementation of an anonymous reporting procedure; and
7. A request that the Covered Vessels be permitted to trade at United States ports.

The testimony was taken in a somewhat informal manner. Ms. Tsochlas was placed under oath and allowed to testify in a narrative manner with assistance of the PowerPoint, but questions were interposed during her narrative by the Special Master, the IEC, the ICC, and the government representatives. Mr. Karagiorgis was also placed under oath and testified briefly to supplement Ms. Tsochlas’ testimony or in response to questions from the parties. At the conclusion of Ms. Tsochlas’s and Mr. Karagiorgis’ testimony, the government, through Ms. Pettus and Coast Guard representatives, put questions to the Ionia representatives and offered relevant comments. The Special Master, the IEC, and the ICC also inquired of the Ionia representatives on matters raised in the testimony or relevant documentation. The IEC and ICC also stated their views on issues raised at the hearing. A transcript of the hearing is attached as

Appendix A.

B. Findings

Based on the testimony at the hearing, the documents presented and the reports of the IEC and ICC, I make the following findings by a preponderance of the evidence:

1. General

- a. Krystyna Tsochlas continues to serve as Ionia's Safety and Quality Manager, Environmental Management Representative and Designated Person Ashore. She has been directly and substantially involved in Ionia's efforts to comply with the terms of probation and the requirements of the Special Master Order. She reports directly to Ionia's managing director.
- b. Georgios Karagiorgis is head of Ionia's Technical Management Department and Corporate Compliance Monitor. He began his employment with Ionia on January 2, 2009. Mr. Karagiorgis is familiar with the duties required of the CCM under the Special Master Order and has been directly and substantially involved in carrying out Ionia's efforts to comply with the terms of probation and the requirements of the Special Master Order.
- c. An initial audit of the M/T FIDIAS was conducted while the vessel was underway from Constantza, Romania to Novorossiysk, Russia from January 24, 2009 to February 4, 2009. The IEC's report of the audit are attached as **Appendix B**, and is adopted as a finding.
- d. No ships managed by Ionia called on U.S. ports during 2008, or to date in 2009, nor are there currently any specific plans for an Ionia vessel to call on a U.S. port. However, Ionia believes to compete effectively in the worldwide shipping market, it is important that its vessels be able to call at U.S. ports. Accordingly, Ionia has

requested that the Covered Vessels be permitted to call at U.S. ports.

2. The Special Waste Oil Monitoring System (SWOMS)

- a. A SWOMS, including the electronic data transmission feature, has been installed and is operational on both of the Covered Vessels. The specifications for the SWOMS were agreed upon with the manufacturer, Vigilant Marine Systems, on January 14, 2008. Installation of the SWOMS system was completed on the M/T THEO T on August 19, 2008 and commissioned as operational on October 24, 2008, allowing for the automatic monitoring of the waste oil stream aboard the vessel and automatic generation of records of waste oil management. However, due to unforeseen incompatibility with the existing Ionia communication system, the automatic electronic transfer of data to Ionia's shore side office was not possible. To remedy this problem, Ionia purchased a new communication systems for its vessels, and the SWOMS was fully commissioned on the M/T THEO T on May 12, 2009. Due to difficulties in accessing the M/T FIDIAS in West African waters, the SWOMS was not installed onboard that vessel until January 18, 2009. Because, like the M/T THEO T, the M/T/ FIDIAS required a the new communication system to transmit data electronically to shore side facilities, the automatic electronic

transfer of data of the SWOMS did not become fully operational on the M/T FIDIAS until April 13, 2009.

- b. On June 16 and 17, 2009, an onboard evaluation of the SWOMS was conducted onboard the M/T THEO T at anchor off Melaka Outer Roads, Malaysia, by a representative of Compliance Systems, Inc., the IEC. A copy of the IEC's evaluation report is attached as **Appendix C** and is adopted as a finding. The evaluation report verified that the SWOMS met the requirements contained in § IV.b. of the Special Master Order, specifically: the SWOMS installed on the M/T THEO T is a system designed to electronically monitor and record all waste oil generation and processing in the engine room, in a tamper-proof and automated manner; the data is recorded at least hourly and sent electronically to Ionia shore side offices.
- c. During the onboard evaluation, manual tank sounding data and data from the oily water separator ("OWS") and incinerator operations were compared by the IEC with the data generated by the SWOMS. Some discrepancies were observed in the quantities of tank soundings and timings in comparison to the oil record book. The exact quantities were not always consistent with the actual tank soundings, likely due to the need for further calibration or timing of sampling. Ionia is in the process of working with Vigilant Marine Systems and its contractor Ashland, Inc. to resolve

calibration and timing issues. The IEC advised that it is expected some calibration problems will remain because of the inherent difficulty in obtaining perfectly consistent readings when a ship is underway and subject to the pitching and rolling inevitable in ocean transport.

- d. The User Manual for the SWOMS was prepared by Vigilant Marine Systems and is maintained onboard the vessels, although the ability of shipboard staff to deal with problems that may arise with the SWOMS is limited because of the tamper-proof nature of the system, which is designed to prohibit access by shipboard staff to avoid the possibility of tampering.
- e. Ionia developed procedures requiring comparison of data produced by the SWOMS with other shipboard waste management records. Those procedures are included in the EMP which has been distributed to all vessels in the Ionia fleet as of July, 2009. Ionia also developed procedures for maintenance and testing of the SWOMS, including a checklist to make sure that maintenance and testing of the SWOMS was carried out pursuant to Ionia requirements and the manufacturer's requirements; the checklist is included in the EMP. SWOMS training has also been included in the pre-joining familiarization program (required of all seafarers before joining a vessel in the Ionia fleet).

- f. The IEC noted that automated waste monitoring and data transmission systems such as the Vigilant Marine SWOMS system purchased by Ionia are recent innovations in a relatively early stage in their development. Accordingly, it is expected that adjustments will be required as the systems are utilized.
- g. Should the Covered Vessels call on a U.S. port, U.S. authorities, including the U.S. Coast Guard, the Department of Justice, the U.S. Probation Office and the Court, could learn much about the practical issues in installing and maintaining a SWOMS by personally inspecting the SWOMS installed on the calling vessel. Moreover, a U.S. port visit by a Covered Vessel will provide an opportunity for U.S. Coast Guard personnel to directly inspect the SWOMS.

3. Training.

- a. Ionia has instituted a training structure for seafarers sailing on its ships. Most of Ionia's crews, generally below the rank of chief officer and chief engineer are native to the Philippines and are hired through a manning agency in the Philippines. Training carried out in the Philippines consists of: 1) training carried out at external training facilities in accordance with the company's training requirements; and 2) pre-joining training carried out at the manning agent's facilities with specific reference to the company's safety management systems, requirements and policies. Training

at external training facilities is based on a matrix that sets out requirements based on the candidate's rank, and department (deck or engineering), all as informed by international, national and industry standards, and additional Ionia requirements. Environmental training required by Ionia includes courses on environmental awareness, auxiliary machinery systems, bilge water/waste oil operation management, cargo handling and safe operation for oil tankers, MARPOL Annex I, MARPOL Annex II, MARPOL Annex VI and shipboard environmental systems.

- b. Ionia also requires a 10-day course of training to be completed by seafarers before joining an Ionia ship. The training is carried out at the manning agent's facilities in the Philippines. It is designed to ensure that Ionia seafarers are familiar with Ionia policy and its safety management system which includes the EMP. The trainers utilized at the manning agency are assigned exclusively to Ionia's seafarers and have been trained at Ionia's offices in Greece. Materials used for the pre-joining training are prepared by shore-based personnel in Greece and reviewed on an annual basis to make sure they are current. Ionia's crew manager, Capt. Tsantes, visits the manning agent in the Philippines three times per year to introduce updated material to be included in pre-joining training and assess the quality of the training provided by the manning agent and the quality of the training provided by the external

training facilities in the Philippines. Ionia has provided copies of Capt. Tsantes' written assessments.

- c. Masters and Chief Engineers are generally from Greece and shore side evaluations and training for those officers are conducted at facilities in Greece.
- d. Ionia has instituted a computerized training program consisting of a competency evaluation system purchased from Seagull AG, a Norwegian maritime training company and a computer-based training ("CBT") system purchased from Videotel Marine International, a supplier of maritime training materials based in the UK.
- e. The competency evaluation software from Seagull was delivered to Ionia in May, 2009 and installed at Ionia's offices. The competency evaluation software will be installed at the manning agent's facilities in the Philippines during the crew manager's next scheduled visit in July 2009.
- f. The competency evaluation software consists of a multiple choice test administered to all seafarers as part of the pre-joining process. The tests have been customized to include Ionia's specific requirements, such as Ionia's environmental management plan, in addition to international, national, flag state and industry requirements.

- g. The competency evaluation software is used to identify any deficiencies in a seafarer's fund of knowledge in relevant areas so that additional training needs can be identified and the fitness of the seafarer for promotion can be assessed.
- h. Ionia is in the process of implementing the Videotel CBT system. The system consists of a set of programs to instruct and test the seafarer on a topic and record the results of the test. Each vessel in the fleet will be provided with a stand-alone computer and 100 training topics. In addition, the manning agent in the Philippines and the Ionia offices in Greece have each been supplied with a stand-alone computer and a set of 300 training topics. The training topics include: navigation, cargo handling, personal safety issues and many others, as well as specific MARPOL legislation and environmental issues. The company has prepared a matrix of training topics which must be carried out by the seafarer. All results from training sessions will be recorded in the company's personnel database and are used in a seafarer's performance appraisal.
- i. Ionia's training of seafarer's will be monitored as follows: prior to signing on, the seafarer candidate's environmental awareness will be assessed; the candidate will be assigned a unique ID number which will stay with him throughout employment with Ionia; the candidate will be tested using the competency and evaluation

software and then the results of the competency evaluation will be reviewed and analyzed to identify any deficits in the candidate's knowledge. Upon approval of the candidate, the seafarer will attend the pre-joining familiarization training during which any of the candidate's deficits will receive particular attention. All records of the competency evaluation training and declaration of commitment to environmental values will be maintained in the seafarer's personnel file. Once onboard, the seafarer will be familiarized with the vessel's pollution prevention equipment and the requirements that are specific to the vessel contained in the EMP. Each seafarer will then participate in weekly training sessions and drills in accordance with the program that has been prepared by Ionia's crew manager. The seafarer will also perform at least two CBT sessions per month. In addition, all crew onboard a vessel are required to attend monthly environmental committee meetings which address any issues relating to environmental protection matters that arise onboard.

- j. All training and drills data and environmental committee meeting minutes are submitted to the company on a monthly basis for review. Prior to signing off, all senior officers are required to sign an acknowledgement of environmental compliance throughout the service onboard, and to advise the replacing officer of any environmental issues that have arisen.

- k. The training described above is required fleet-wide, not just on the Covered Vessels.
 - l. The training procedure, record management and review process is in the process of being implemented at Ionia. The CBT units are installed on three of Ionia's seven vessels; the remainder will be installed as the vessels' trading patterns permit. The full program will be implemented when all vessels are fitted with the CBT hardware. Training statistics for Ionia seafarers will be reviewed on a six-month basis in order to assess performances both of the procedure and the seafarers. The first six-month review is expected to occur in December 2009 or January 2010, depending on when all hardware has been installed in the vessels and the system fully implemented.
4. Environmental Management Plan ("EMP").
- a. Although not specifically required in Ionia's conditions of probation or in the Special Master's Order, pursuant to the recommendations of the IEC in the initial audit of the M/T THEO T, Ionia drafted an EMP to supplement and update the Environmental Management System already in place pursuant to Ionia's ISO 14001 certification.
 - b. As of July 1, 2009, the EMP has been distributed to and implemented in all Ionia vessels and offices. The plan is comprehensive and sets out the company's environmental policies,

procedures to accomplish them, and the responsibilities of company managers and seafarers in carrying out the policies and procedures.

- c. Ionia instituted a procedure for training all shore and sea staff on the details of the EMP. Training was carried out first with the shore-based staff. The company plans to have a technical superintendent, the Technical Manager and/or the Safety and Quality Manager board each of Ionia's vessels in order to conduct training to make sure that all onboard staff are familiar with the requirements of the EMP and will commit to its letter and spirit. In addition, Ionia's crew manager will provide training on the EMP at the manning agent's facility in Manila during his visit scheduled for the second week of July, 2009.
- d. Internal audits will be carried out onboard each vessel, upon six months of implementation of the EMP in order to insure that the system has been effectively implemented. The effectiveness of the EMP will be evaluated upon completion of six months of implementation and internal audits. The evaluation will be based on audit results, master's reviews, and completed engineering surveys.
- e. Forms related to the implementation of each procedure spelled out in the EMP have been developed and distributed to the vessels.

- f. The EMP specifically includes a section devoted to special procedures that apply to the Covered Vessels as a result of Ionia's probation, including the roles and responsibilities of the CCM, document review and submission, and the SWOMS.

5. M/T FIDIAS Initial Audit.

- a. The IEC performed the initial audit of the M/T FIDIAS underway from Constantza, Romania to Novorossiysk, Russia from January 24, 2009 through February 4, 2009. The performance of the audit followed the procedural guidelines contained in Attachment A of the Special Master Order. The IEC's report of the audit is attached as **Appendix B**. The audit concluded generally that the overall condition of the vessel and waste-related machineries was very good, and that, since the audit of the M/T THEO T, Ionia has made remarkable progress in environmental compliance by introducing new forms, procedures and guidelines. Nevertheless, the audit report noted a number of issues and suggested improvements. Ionia addressed each of these issues and suggestions in testimony at the Special Master's second hearing, including the following:
 - 1) Procedure for maintaining seal logs was significantly revised and includes the maintenance of an engine room seal logbook, specific seal installation guidelines and the maintenance of a separate spare seal logbook by the master.

- 2) Ionia disputed the need for modification to the vessel's piping to allow for capacity measurement during in-port testing of the OWS. While the current configuration of the vessel's piping allows for in-port operational testing of the OWS, it does not allow for in-port measuring of the cubic-meters-per-hour capacity of the OWS. The IEC auditors recommended a modification of the waste oil piping system to allow for in-port OWS capacity testing. I find that in-port capacity testing is not required by MARPOL, and in any case, capacity testing is available while the vessel is underway. (IEC audits are carried out while the vessel is underway.) Moreover, OWS capacity can be determined by reviewing Oil Record Book entries for previous overboard operations. Further, it seems the primary purpose of in-port OWS testing is to determine whether the OWS can process bilge holding tank contents for a period of time without difficulty. Accordingly, I find that the current configuration of the vessel's piping allows for sufficient in-port testing when necessary.
- 3) An internal audit procedure has been prepared and included in the EMP, including checklists. Internal environmental audits are required to be carried out onboard by a qualified Ionia auditor annually.

- 4) A waste stream management procedure has been included in Ionia's EMP.
- 5) Ionia has had a Management of Change procedure in place since 2006; the procedure was utilized in instituting the SWOMS.
- 6) Issues related to the minimum engineering risk mitigation measures required by Attachment B to the Special Master Order, were satisfactorily addressed by Ionia, including installation of blank flanges, bilge sampling and OWS performance analysis, source tank cleaning and oil to sea interface monitoring procedures.

6. Fleet Engineering Survey.

- a. A fleet engineering survey was carried out onboard all vessels in the Ionia fleet in April of 2009. A procedure has been included in the EMP requiring a fleet engineering survey to be completed by all engine officers within three months of signing onboard.

7. Anonymous Reporting Procedure.

- a. The anonymous report procedure has been revised and included in the EMP. Seafarers are able to report anonymously either to the CCM or the DPA by means of email or anonymous letter. The company is attempting to set up a toll-free telephone number for anonymous reports, but is having difficulty because telephone service providers cannot provide toll-free coverage to some areas

of the world where Ionia ships trade. Also, because email can be tracked, particularly when a vessel is not in port, anonymity of email reports cannot be guaranteed. Ionia has considered the additional option of a website allowing for anonymous reporting.

- b. The company eliminated the lock box onboard because of the difficulty in assuring anonymous reports would be received by shore-based management in a timely manner. I find that their concerns in that regard are well founded and the current anonymous reporting system is adequate, but could be improved with a toll-free telephone system or a website based option.

III. Conclusions

1. Ionia has made substantial progress in compiling equipment and instituting procedures to achieve a high level of compliance with United States, international and industry environmental standards. Ionia's Environmental Management Representative and its Corporate Compliance Manager both demonstrate well-considered, systematic approaches to assure high standards of environmental accountability.

2. Ionia has installed a SWOMS in compliance with the requirements of the terms and conditions of its probation and the Special Master Order.

3. Ionia has instituted an Environmental Management Plan pursuant to the recommendations of the IEC. The EMP addresses many of the issues raised in the initial audits of the Covered Vessels.

4. Ionia has established a comprehensive training program, both at its offices in Greece and at its manning agent in the Philippines. The full training program, including

computer-based training, has not yet been fully implemented, but it is expected to be in full operation within six months.

5. Ionia has submitted its shipboard records as required in Paragraph IV.a. of the Special Master's Order.

IV. Recommendations

1. The M/T THEO T and the M/T FIDIAS should be allowed to call on U.S. ports on the following conditions:

- a. Ionia give notice to the representatives of the United States Department of Justice and the United States Coast Guard, Special Master and the Court of its intent to call on a U.S. port at the earliest practicable time, preferably within three (3) days of concluding a charter party contemplating calling on a U.S. port.
- b. All production of documents pursuant to the Special Master Order be up-to-date.
- c. Ionia allow for inspection of the calling vessel, including the SWOMS, by representatives of the government, the United States Probation Office, the Special Master and/or the Court, if practicable.

2. In order to determine the practicability of a SWOMS system, Ionia should provide the Special Master and the government with a statement of the costs it has incurred in obtaining, installing, calibrating and maintaining the SWOMS.

3. In order to assess its commitment to environmental compliance, Ionia should provide the Special Master and the government with a statement of the costs it has incurred in creating and implementing the EMP.

4. Ionia should report to the Special Master, ICC, IEC and the parties when its training program has been fully implemented.

5. Ionia should continue to work with the IEC in refining its fleet engineering survey.

6. Ionia consider instituting a website based anonymous reporting option and continue to work to establish a toll-free anonymous telephone line.

Respectfully Submitted this 4th day of August, 2009.

/s/ Robert C. Bundy

Robert C. Bundy, Special Master

SERVICE LIST

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